The psychologist used a laboratory experiment in this study. Explain how laboratory experiments are different from field experiments. [2 marks]

SAMPLE ANSWER(S)

a) Laboratory experiments are lab based. Therefore they are easier to control. Field experiments are out in the open and are natural. However they are harder to control due to weather or noise.

b) Laboratory experiments are experiments carried out in a highly controlled artificial environment. Whereas field experiments are conducted in a real life, natural setting.

Mark/band a) 1 mark / b) 2 marks

COMMENTARY

a) The candidate has given a tautological response. They have offered 'opposites' instead of demonstrating a true understanding of how the experiments differ. For example, easier to control, harder to control. Being 'lab based' does not illustrate an understanding of laboratory experiments or how they differ from field experiments. The candidate achieves 1 mark for correctly identifying field experiments are natural or harder to control.

b) By contrast, this candidate has given an excellent response which clearly demonstrates understanding of how the two experiments differ and so achieves full marks as a direct comparison is drawn.

How the answer could be improved

a) The candidate needed to draw a comparison between the two experiments avoiding a tautological response. The question required a level of explanation and so focussing on one aspect and comparing them would have been better than offering different features of an experiment without any comparison.

General performance on the question

This question was a good differentiator as many candidates provided responses in line with a) above. Where full marks were given, it tended to reflect candidates who achieved top band marks for the entire paper.

The psychologist gave participants the same maths test printed on white and then green paper. Explain why the psychologist used the same maths test. **[2 marks]**

SAMPLE ANSWER(S)

a) If they used a different maths test the varying results may have been caused by the fact that the second test was harder than the first test or the other way round.

b) Because if it was different then they could for example find it much harder and not do as well because of the test and not because of the colour of the paper which would make the findings unreliable.

Mark/band a) 1 mark / b) 2 marks

COMMENTARY

a) 1 mark was awarded for the implicit reference to the use of a control but as there is no elaboration of how or why it acted as a control the second mark could not be achieved.

b) An implicit reference to control is apparent in this second response and has been fully elaborated on – the candidate has recognised that the colour of paper would not be what was being tested had the psychologist used a different maths test.

What the candidate did well

They were able to recognise that using the same maths test was a control employed in the study to avoid the maths test from becoming an extraneous variable and affecting the DV.

How the answer could be improved

a) The candidate needed to have elaborated on their answer to show fully why the control was in place. Reference to the source was needed to achieve this and so candidates are encouraged to utilise the source material more effectively in their responses.

General performance on the question

Good, with many candidates providing responses similar to b) above. Psychological terminology was also good in many responses with candidates referring to a different maths test being a potential extraneous variable.

You have been asked to carry out a questionnaire to investigate whether there are gender differences in addiction to computer games. The theory is that males are more addicted to playing computer games than females.

State a null hypothesis for your investigation. **[2 marks]**

SAMPLE ANSWER(S)

a) A null hypothesis is a hypothesis that shows no difference. Both males and female are addicted to computer games.

b) There will be gender differences in addiction to computer games

c) There will be no relationship or difference between genders and addiction to computer gaming.

d) There will be no difference in the number of males and females that are addicted to computer games.

Mark/band a) 1 mark / b) 1 mark / c) 1 mark d) 2 marks

COMMENTARY

For two marks the following had to be met:

1. The hypothesis must be null
2. Both variables must be present, in this case, gender and addiction to computer games.

As with all hypothesis questions of this nature, the marks are awarded independently allowing candidates to achieve partial marks where full marks cannot be given.

Only example d) achieves this. In example a) the candidate gives a definition of a null hypothesis which is not required by the question so is not creditworthy. In example b) an alternative hypothesis is given 'there will be' and so 1 mark is achieved for correctly identifying the variables. In example c), although the candidate has recognised no difference, they have also stated no relationship which would be appropriate for correlations. The mark scheme dictates that where 'relationship is used alone or with 'difference' this cannot be credited as the candidate is not showing an understanding between types of hypotheses.

What the candidate did well

Candidates always do well at recognising the difference between null and alternate hypotheses.

How the answer could be improved

In order to gain full marks candidates must initially recognise that 'relationship' should only be used for correlational research. Secondly, correctly using no difference to show knowledge of null hypotheses and correctly stating the variables.

General performance on the question

Many candidates show evidence of being very well practiced on writing hypotheses with the majority achieving full marks.

In Q13a(i) candidates were required to give an example of a question you would use in your questionnaire. **[1 mark]**

Q13b(ii). Explain why you would use this type of question. **[2 marks]**

SAMPLE ANSWER(S)

a) This will determine whether girls or boys like computer games more than each other to confirm gender differences.

b) It will be easier to analyse. Also it is easier to compare the results and put the results into a chart.

c) It allows easily comparable results (data) and is quantitative so there isn't any need to expand. Therefore a closed question will suffice.

d) Because it will give quantitative data which is easier to compare than with qualitative data.

Mark/band a) 1 mark b) 1 mark c) 2 marks d) 2 marks

COMMENTARY

For two marks the following had to be met:

1 mark for briefly explaining why the type of question was chosen.

1 mark for an elaborated explanation of why this type of question was chosen.

The focus of this question is on the TYPE, so responses which focussed on why the actual question (ie its content as opposed to the type) failed to achieve any marks. This is illustrated in example a) above.

In example b) the candidate has recognised that their question example in part (i) will in fact be easier to compare, so achieves 1 mark. The candidate fails to elaborate on why it is easier to compare and so is unable to gain the second mark. For full marks, the response had to clearly indicate why the question was chosen based on the type of question they had chosen. Both examples c) and d) above achieve this. In d) 'give quantitative data [1] ….easier to compare' [1].

What the candidate did well.

Candidates c) and d) both gave elaborated responses and went beyond identifying.

How the answer could be improved

In order to gain full marks, candidates must initially recognise that the question they have chosen gives quantitative or numerical data (or qualitative if they had chosen an open question in (bi) and secondly to fully encompass why they had chosen it by elaborating with an explanation as the question stem was 'explain'.

General performance on the question

Many candidates achieved 1 mark for stating that comparisons could be drawn more easily or for recognising that the question type had given them quantitative data. Fewer candidates achieved full marks for doing both.

Briefly outline how you would carry out the questionnaire to investigate whether there are gender differences in addiction to computer games. **[3 marks]**

SAMPLE ANSWER(S)

a) I would ask many questions in regards to how long they play their computer games for, their favourite games, how many times they go out with friends weekly, how much time they spend with others and away from the computer etc. The responses I get from these questions will show me if there are any gender differences and exactly what those differences are.

b) I will interview 50 males and 50 females using opportunity sampling from school using my class. I will ask them quantitative and closed questions. The variable I will manipulate is whether the participants are male or female and the variable I will measure is the amount of hours they play video games a week. I will then debrief the participants after the questionnaire is finished.

c) I would go to a local secondary school and ask 100 students to complete the questionnaire. I would use opportunity sampling as it is quicker and easier, I would make sure to ask 50 boys and 50 girls to prevent gender bias and make sure that the participants' names remain confidential.

Mark/band a) 1 mark b) 2 marks c) 3 marks

COMMENTARY

For full marks the candidate needs to provide a reasonably detailed procedure describing how they would carry out their investigation. Careful attention must be paid to the other questions asked in section B as credit cannot be awarded twice. For example, describing how they would present their data in (c) and again in (f) would only gain credit once. Examiners mark the whole of section B together to ensure marks are not replicated.

In this session, candidates had the opportunity to describe sampling, sample or target populations, additional questions they may ask and ethical issues they would need to consider. Due to the nature of the investigation, evidence of investigating gender differences should also be seen.

In example a) above, the candidate offers several additional questions they would ask which are different from their answer in 13bi. This can achieve 1 mark. In example b) This is a very confused answer. The candidate had focussed on using the experimental method rather than carrying out a questionnaire as asked by the question. They also have confused interviews with questionnaires. 1 mark , however, can be awarded for the reference to opportunity sampling as the candidate has fully illustrated that they understand how this would be achieved (ie reference to using their class at school). An additional mark can be awarded for debriefing the participants.

In example c) opportunity sampling with a description of how it is carried out is given [1], the definition is not credited as the focus of the question is how not why. The candidate considers ethics by keeping the participants names confidential [1] and considers that gender by stating that they would ask 50 boys and 50 girls [1]. This example fulfils the requirements of the mark scheme and so achieves full marks.

How the answer could be improved

Responses that do not achieve full marks should consider the following:

- Making sure that they carry out the method asked for by the question to avoid lost marks by describing experiments when questionnaires are asked for.
- Making sure they do not offer information that has already been credited in previous questions or in future questions in section B.
- Making sure that they fully illustrate how their investigation could be carried out. It is not enough to merely mention using opportunity sampling if there is no evidence of how that would be employed.
- Making sure that they don't focus on one aspect only such as the questions they would ask (example a) here) or several ethical issues. Only one feature will be credited.

General performance on the question

Almost all candidates achieved 1 mark on this question for identifying an aspect of an appropriate procedure. Only a minority of candidates appear to achieve full marks for careful consideration of their procedure. Although a rise in well planned answers has been seen. Centres are encouraged to get their students to experience first-hand ways of conducting research as this paper replaced the coursework element of previous GCSE psychology specifications.

Extraneous variables can affect experiments. Explain what an extraneous variable is. [2 marks]

SAMPLE ANSWER(S)

a) An extraneous variable is something that is not the independent variable but could still affect the dependent variable.

b) Something that the researcher does not control and so it affects the results like the weather.

Mark/band a) 2 marks / b) 1 mark

COMMENTARY

For two marks recognising that extraneous variables are 1) not the independent variable and 2) can affect the results of an investigation was required for both marks. In example a) this was achieved but in b) the candidate only provided half of the required answer. The example of an extraneous variable was not credit worthy – see below.

How the answer could be improved

Candidates had to encompass the entire concept to access full marks. This was a top band question. Reference to both features was required as provided by example a).

General performance on the question

Whilst many candidates were able to recognise that an extraneous variable can affect the dependent variable (required for one mark), fewer candidates demonstrated an understanding that it is a variable which is not the independent variable (required for the second mark). Many candidates gave examples of generic extraneous variables such as the weather or food eaten, which were irrelevant and so could not be credited. Candidates are encouraged to read questions carefully and as such to give an explanation where asked for one. Whilst examples are encouraged they must be relevant and used for illustrative purposes only.

Describe one strength of using a questionnaire in you investigation. **[2 marks]**

SAMPLE ANSWER(S)

a) It allows for confidentiality and so they can feel like they can answer as they wish.

b) People may feel more comfortable answering anonymous questions in a questionnaire unlike in an interview where they may lie or feel awkward or give demand characteristics.

Mark/band a) 2 marks / b) 2 marks

COMMENTARY

Both the responses above are good answers. They both identify a generic strength of a questionnaire and both go beyond this explaining why it is a strength in their investigation.

What the candidate did well.

Both candidates following the stem 'describe' well and reinforced their strength of a questionnaire by explaining why it was a strength. Neither response contradicted the design of their investigation.

General performance on the question

Almost all candidates were able to achieve 1 mark for this question by identifying an appropriate strength. The majority of candidates achieved the second mark for giving a description / elaboration as required. Where errors were made candidates offered strengths which contradicted the nature of their investigation in section B, or by repeating the answer they gave in 13bii re-stating that a strength would be that it would provide quantitative data. Candidates are encouraged not to overlap or repeat answers in section B and to remember that each question focuses on the design of their choice and as such it should provide continuity.

Outline how social desirability could affect your investigation. **[2 marks]**

SAMPLE ANSWER(S)

a) People may see computer games as a cool thing and people who are not allowed them or can't afford them may pretend that they play computer games to fit in with the majority of people who do.

b) The participant may not be honest because they may feel embarrassed or may feel like a social outcast therefore may lie a bit to look better in front of others.

c) People could lie to make themselves seem socially desirable.

Mark/band a) 3 marks / b) 2 marks / c) 1 mark

COMMENTARY

For full marks, the candidate had to demonstrate an accurate understanding of the concept of social desirability including that people may be dishonest and give the response they believe the researcher or society expects of them whilst contextualising their answer to the nature of their investigation.

Example a) achieves this 'may pretend' (infers dishonesty) [1], 'fit in with the majority' [1] and 'computer games' so context. In example b) there is no contextualisation and so 2 marks awarded and in c) 1 mark is awarded for 'lie'. No marks can be achieved for tautological responses 'seem socially desirable' as this does not illustrate an understanding of the concept.

What the candidate did well.

Candidate a) placed their response in context. All three examples manage to achieve some marks for a partial understanding of social desirability.

How the answer could be improved

Candidates are encouraged to fully contextualise their answers where a question requires them to do so.

General performance on the question

Almost all candidates were able to achieve 1 mark for this question usually by reference to lying or being dishonest. The majority of candidates achieved the second mark for demonstrating an understanding that social desirability involves trying to fit in with others or giving answers the research society wants instead of their own truthful response. Fewer candidates achieved full marks for placing it in context of their investigation.